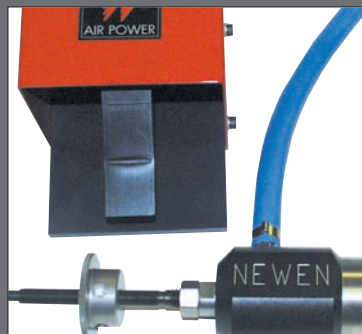
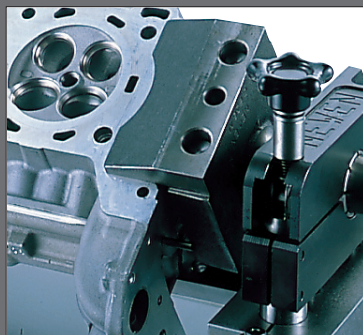


# TOOLS, FIXTURES

ENGLISH

## & ACCESSORIES



**NEWEN**®

*Elite Power Contouring.*

# A COMPLETE RANGE of CNC Valve Seat & Guide Machines FOR ALL NEEDS

*High-Performance*

## CONTOUR-BB™

All the **FIXED-TURNING®**  
qualities at the price of a  
traditional machine



## CONTOUR™

The **FIXED-TURNING®** for seats  
ranging from 13 to 110mm (.50"-4.33")  
in diameter. 1600 mm long frame.



**FIXED-TURNING®**



## EPOC™

the most complete offer  
from motorcycle to  
industrial applications; the  
choice of "creators" and  
developers...



## EPOC-XL™

The **FIXED-TURNING® XL**  
... for large dimension industrial  
engines (any seat ranging from  
13mm to 200mm+ (.50"-7.87"+)  
in diameter)

# NEWEN®

### NEWEN INC

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[www.newen.com](http://www.newen.com)

**FIXED-TURNING®**

World Patents: 6,086,293; 6,382,883B1; 6,382,884B1...



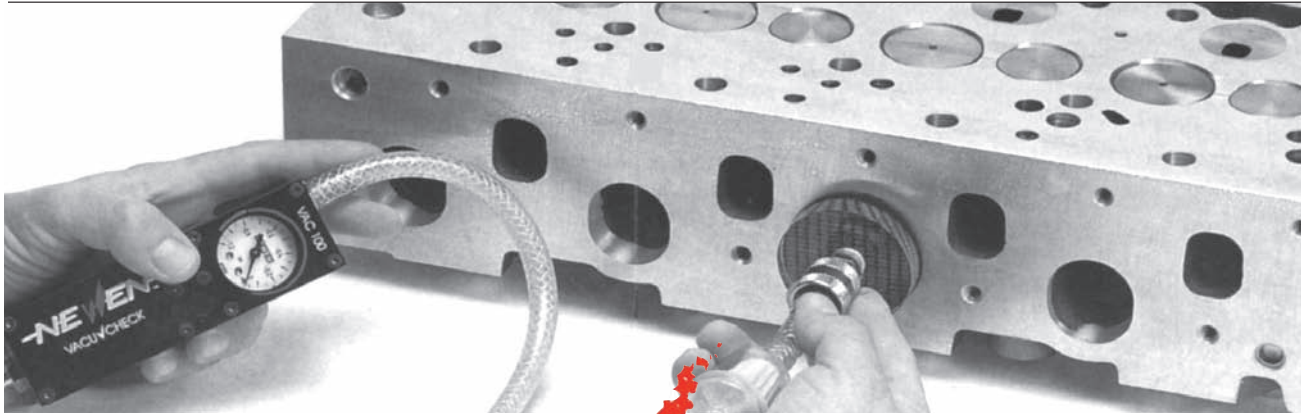
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# VACU•CHECK™

PATENTED

## LEAKDOWN DETECTION

What sets the Vacu• check™ apart from any other vacuum tester on the market are its two built-in non-return valves that actually hold the vacuum that it creates.

Once the vacuum is created, the built-in valves shut automatically and the vacuum is held within a totally airtight volume.

The gauge of the Vacu• check™ is installed in line within a totally airtight volume.

The gauge of the Vacu• check™ is installed in line with the above mentioned circuit and allows the Vacu• check™ user to measure any leak accurately, regardless of its size, including micro-leaks that typically go unnoticed.

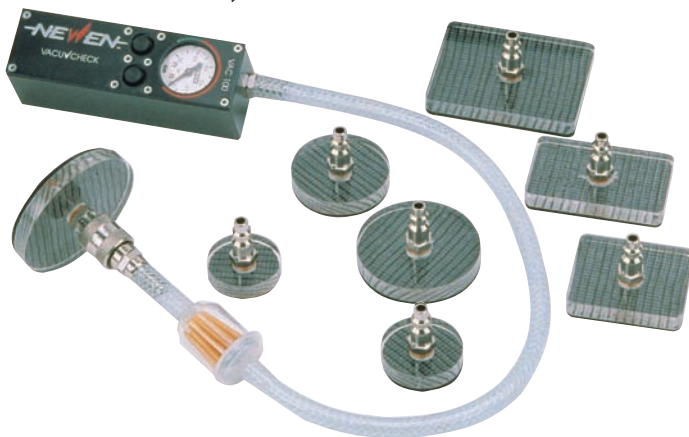
**True leak detection can only occur after the pump is stopped.**

Only Vacu• check™ lets you measure the leakdown time and detect leaks.

### A two step process:

1. Create the vacuum
2. Monitor leak

Vacu• check™, another NEWEN® innovation....



### ■ VAC100

The Vacu• check™ comes in a sturdy, yet light-weight carrying case, with 8 pads and two in-line filters. It is easy to carry, fits comfortably in your hand and only requires an airline to be operated.

#### TECHNICAL CHARACTERISTICS

##### Compressed Air:

Pressure: 70 to 90 PSI (5 to 6 bars)  
Air Flow: 1.12 cfm (0.53 l/second)

##### Depression:

Maximum Vacuum: 28.1" Hg (-94kPa)  
Time for evacuation of 1 liter of air  
14.94" Hg (-50kPa) = 2 seconds  
23.91" Hg (-80 kPa) = 5 seconds

Sound level: 60 dB(A)

Temperature: -4°F to +176°F (-20°C to + 80°C)



■ **VAC301**  
Replacement plexiglass plate  
*Round*  
Diameter: 42mm (1.6535")



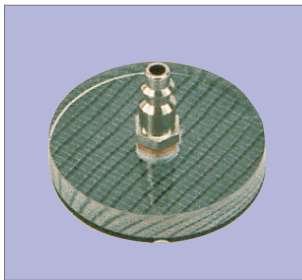
■ **VAC302**  
Replacement plexiglass plate  
*Round*  
Diameter: 45mm (1.7716")



■ **VAC303**  
Replacement plexiglass plate  
*Round*  
Diameter: 57mm (2.2441")



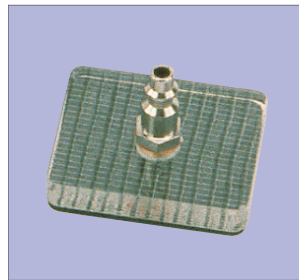
■ **VAC304**  
Replacement plexiglass plate  
*Round*  
Diameter: 70mm (2.7559")



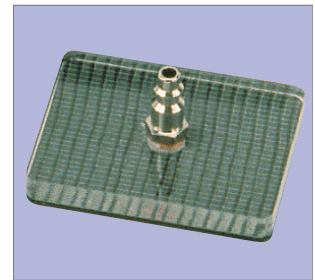
■ **VAC305**  
Replacement plexiglass plate  
*Round*  
Diameter: 80mm (3.1496")



■ **VAC306**  
Replacement plexiglass plate  
*Rectangular*  
Dimensions: 50mm x 80mm  
(1.9685" x 3.1496")



■ **VAC307**  
Replacement plexiglass plate  
*Rectangular*  
Dimensions: 55mm x 65mm  
(2.1654" x 2.5591")



■ **VAC308**  
Replacement plexiglass plate  
*Rectangular*  
Dimensions: 70mm x 90mm  
(2.7559" x 3.5433")



■ **VAC323**  
Replacement in-line filter  
(unit: one filter).



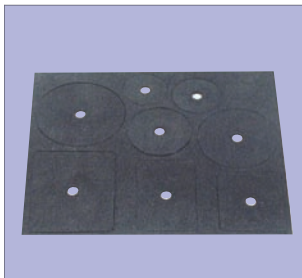
■ **VAC329**  
Replacement vacuum chip.



■ **VAC330**  
Replacement gauge.



■ **VAC308**  
Plexiglass Plate  
*Rectangular*  
Dimensions: 101.6mm X101.6mm  
(4" x 4")



■ **VAC311**  
Replacement pre-cut  
self-adhesive foam pad  
set (100% compatible with  
Serdipads).



■ **VAC326**  
Aluminum plug for plexi-  
glass plates.



■ **VAC322**  
Quick Connection with rub-  
ber tip for closed circuit.

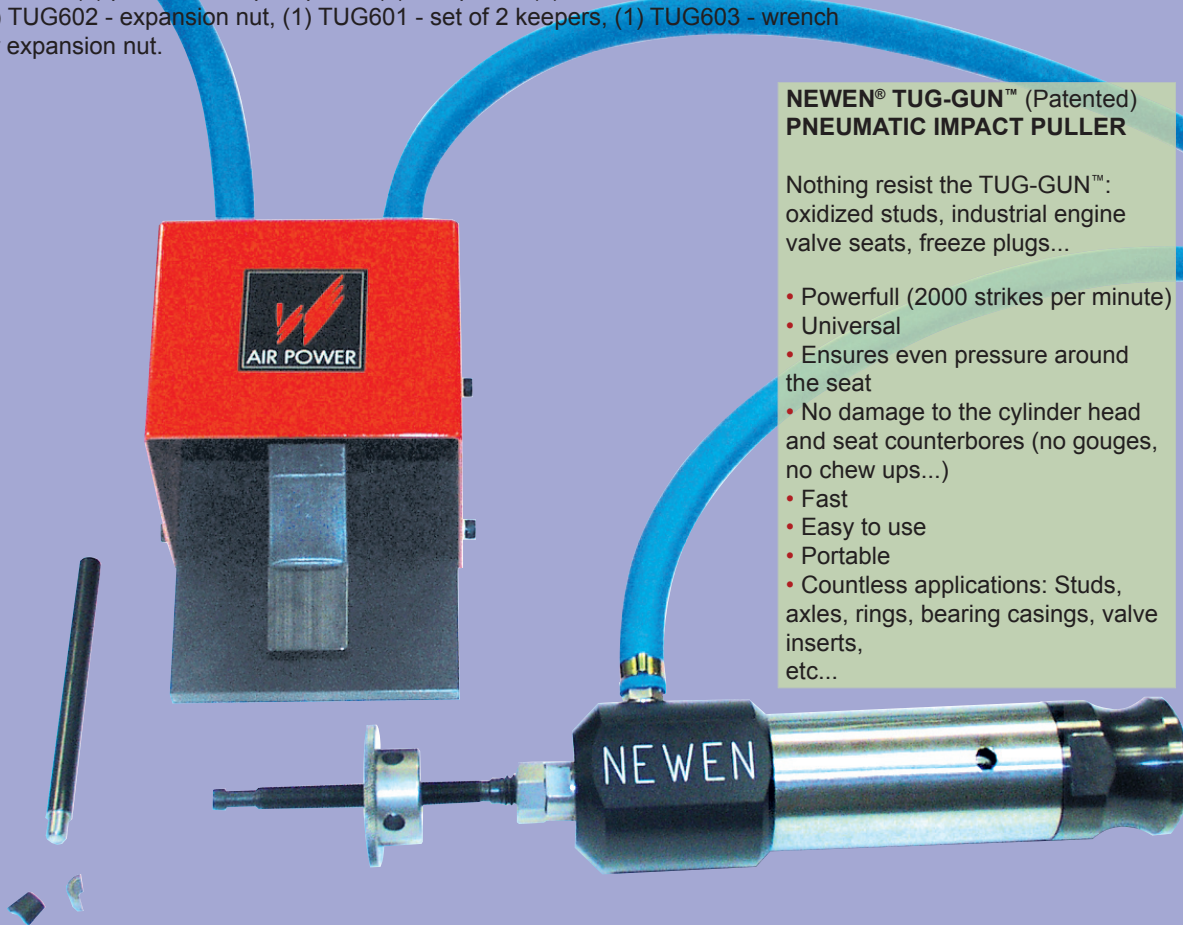


■ **VAC332**  
Replacement O-ring set.

## ■ TUG100

TUG-GUN™, universal pneumatic impact puller.

Includes: (1) pneumatic impact puller, (1) foot pedal, (1) TUG600 - threaded shaft, (1) TUG602 - expansion nut, (1) TUG601 - set of 2 keepers, (1) TUG603 - wrench for expansion nut.



### NEWEN® TUG-GUN™ (Patented) PNEUMATIC IMPACT PULLER

Nothing resist the TUG-GUN™:  
oxidized studs, industrial engine  
valve seats, freeze plugs...

- Powerfull (2000 strikes per minute)
- Universal
- Ensures even pressure around the seat
- No damage to the cylinder head and seat counterbores (no gouges, no chew ups...)
- Fast
- Easy to use
- Portable
- Countless applications: Studs, axles, rings, bearing casings, valve inserts, etc...

### TUG-GUN™

by NEWEN®

"Machinists faced with the task of extracting valve seat inserts have only a few removal options - lever-type pullers, expansion-type pullers or heating with a torch so that the cylinder head expands quickly enough to allow the insert to pop out. Unfortunately, all three methods have the potential to damage the head and/or seat counterbores.

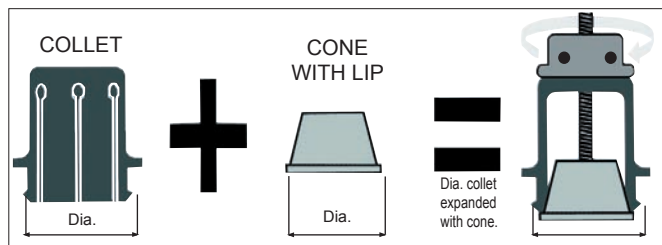
TUG-GUN™ uses a novel approach - pneumatic power - to quickly extract valve seat inserts within seconds, without damage. You begin by putting the proper collet and cone for the application onto the gun's threaded rod to hold everything in place. Once the correct spacers are selected, you place them between the collet's upper lip and the top of the valve seat. Next, position the TUG-GUN™ onto the seat, making sure that the lower collet lip engages the bottom of the seat. Finally, snug up the expansion nut, activate the gun and watch as the seat insert pulls effortlessly away from the counterbore.

NEWEN® makes collets to handle every head imaginable - from the smallest aluminum job to the gargantuan cast-iron diesels from Caterpillar, Detroit Diesel and Cummins. Optional attachments are also available to extract press-in studs...."

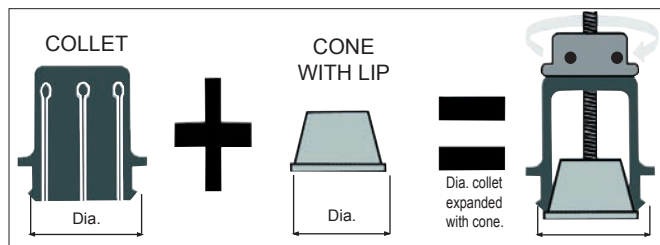
September 1994

**Motor Magazine**

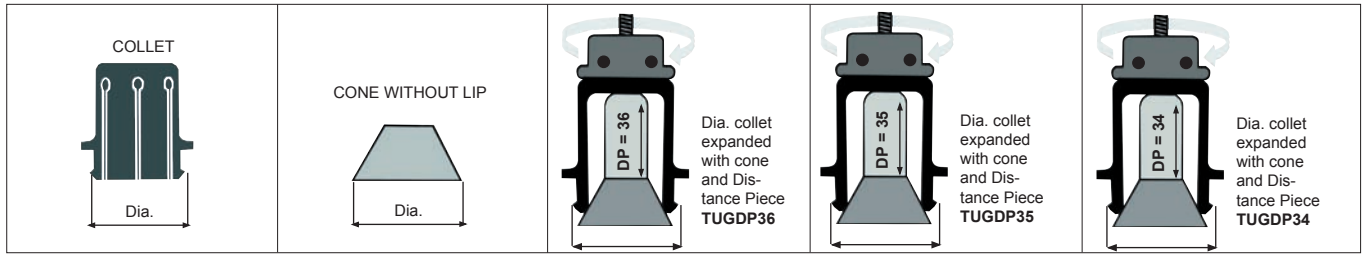




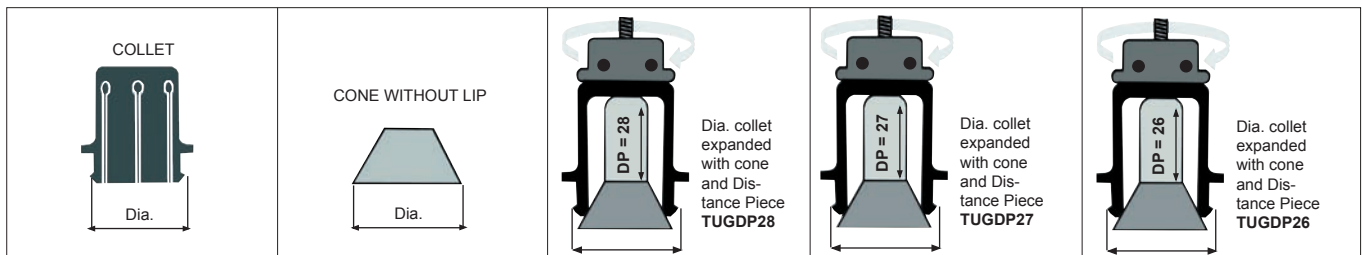
<b>TUG301</b> Dia. 23mm (.906")	<b>TUG419</b> Dia. 19mm (.748")	Dia. 24mm (.945")
<b>TUG301</b> Dia. 23mm (.906")	<b>TUG420</b> Dia. 20mm (.787")	Dia. 25mm (.984")
<b>TUG302</b> Dia. 25mm (.984")	<b>TUG421</b> Dia. 21mm (.827")	Dia. 26mm (1.024")
<b>TUG302</b> Dia. 25mm (.984")	<b>TUG422</b> Dia. 22mm (.866")	Dia. 27mm (1.063")
<b>TUG303</b> Dia. 27mm (1.063")	<b>TUG423</b> Dia. 23mm (.906")	Dia. 28mm (1.102")
<b>TUG303</b> Dia. 27mm (1.063")	<b>TUG424</b> Dia. 24mm (.945")	Dia. 29mm (1.142")
<b>TUG304</b> Dia. 29mm (1.142")	<b>TUG425</b> Dia. 25mm (.984")	Dia. 30mm (1.181")
<b>TUG304</b> Dia. 29mm (1.142")	<b>TUG426</b> Dia. 26mm (1.024")	Dia. 31mm (1.220")
<b>TUG305</b> Dia. 31mm (1.220")	<b>TUG427</b> Dia. 27mm (1.063")	Dia. 32mm (1.260")
<b>TUG305</b> Dia. 31mm (1.220")	<b>TUG428</b> Dia. 28mm (1.102")	Dia. 33mm (1.299")
<b>TUG306</b> Dia. 33mm (1.299")	<b>TUG429</b> Dia. 29mm (1.142")	Dia. 34mm (1.339")
<b>TUG306</b> Dia. 33mm (1.299")	<b>TUG430</b> Dia. 30mm (1.181")	Dia. 35mm (1.378")
<b>TUG306</b> Dia. 33mm (1.299")	<b>TUG431</b> Dia. 31mm (1.220")	Dia. 36mm (1.417")
<b>TUG307</b> Dia. 35mm (1.378")	<b>TUG432</b> Dia. 32mm (1.260")	Dia. 37mm (1.457")
<b>TUG306</b> Dia. 33mm (1.299")	<b>TUG433</b> Dia. 33mm (1.299")	Dia. 38mm (1.496")
<b>TUG307</b> Dia. 35mm (1.378")	<b>TUG434</b> Dia. 34mm (1.399")	Dia. 39mm (1.535")
<b>TUG308</b> Dia. 37mm (1.457")	<b>TUG435</b> Dia. 35mm (1.378")	Dia. 40mm (1.575")
<b>TUG307</b> Dia. 35mm (1.378")	<b>TUG436</b> Dia. 36mm (1.417")	Dia. 41mm (1.614")
<b>TUG308</b> Dia. 37mm (1.457")	<b>TUG437</b> Dia. 37mm (1.457")	Dia. 42mm (1.654")
<b>TUG309</b> Dia. 39mm (1.535")	<b>TUG438</b> Dia. 38mm (1.496")	Dia. 43mm (1.693")
<b>TUG308</b> Dia. 37mm (1.457")	<b>TUG439</b> Dia. 39mm (1.535")	Dia. 44mm (1.732")
<b>TUG309</b> Dia. 39mm (1.535")		
<b>TUG310</b> Dia. 41mm (1.614")		
<b>TUG309</b> Dia. 39mm (1.535")		
<b>TUG310</b> Dia. 41mm (1.614")		
<b>TUG310</b> Dia. 41mm (1.614")		



<b>TUG311</b> Dia. 43mm (1.693")	<b>TUG439</b> Dia. 39mm (1.535")	Dia. 44mm (1.732")
<b>TUG310</b> Dia. 41mm (1.614")	<b>TUG440</b> Dia. 40mm (1.575")	Dia. 45mm (1.772")
<b>TUG311</b> Dia. 43mm (1.693")	<b>TUG441</b> Dia. 41mm (1.614")	Dia. 46mm (1.811")
<b>TUG311</b> Dia. 43mm (1.693")	<b>TUG442</b> Dia. 42mm (1.654")	Dia. 47mm (1.850")
<b>TUG312</b> Dia. 45mm (1.772")	<b>TUG443</b> Dia. 43mm (1.693")	Dia. 48mm (1.890")
<b>TUG311</b> Dia. 43mm (1.693")	<b>TUG444</b> Dia. 44mm (1.732")	Dia. 49mm (1.929")
<b>TUG312</b> Dia. 45mm (1.772")	<b>TUG445</b> Dia. 45mm (1.772")	Dia. 50mm (1.968")
<b>TUG312</b> Dia. 45mm (1.772")	<b>TUG446</b> Dia. 46mm (1.811")	Dia. 51mm (2.008")
<b>TUG313</b> Dia. 47mm (1.850")	<b>TUG447</b> Dia. 47mm (1.850")	Dia. 52mm (2.047")
<b>TUG312</b> Dia. 45mm (1.772")	<b>TUG448</b> Dia. 48mm (1.890")	Dia. 53mm (2.087")
<b>TUG313</b> Dia. 47mm (1.850")	<b>TUG449</b> Dia. 49mm (1.929")	Dia. 54mm (2.126")
<b>TUG314</b> Dia. 49mm (1.929")	<b>TUG450</b> Dia. 50mm (1.968")	Dia. 55mm (2.165")
<b>TUG313</b> Dia. 47mm (1.850")	<b>TUG451</b> Dia. 51mm (2.008")	Dia. 56mm (2.205")
<b>TUG314</b> Dia. 49mm (1.929")	<b>TUG452</b> Dia. 52mm (2.047")	Dia. 57mm (2.244")
<b>TUG315</b> Dia. 51mm (2.008")	<b>TUG453</b> Dia. 53mm (2.087")	Dia. 58mm (2.283")
<b>TUG314</b> Dia. 49mm (1.929")	<b>TUG454</b> Dia. 54mm (2.126")	Dia. 59mm (2.323")
<b>TUG315</b> Dia. 51mm (2.008")		
<b>TUG316</b> Dia. 53mm (2.087")		
<b>TUG315</b> Dia. 51mm (2.008")		
<b>TUG316</b> Dia. 53mm (2.087")		
<b>TUG317</b> Dia. 55mm (2.165")		
<b>TUG316</b> Dia. 53mm (2.087")		
<b>TUG317</b> Dia. 55mm (2.165")		
<b>TUG317</b> Dia. 55mm (2.165")		



<b>TUG302</b> Dia. 25mm (.984")	<b>TUG519</b> Dia. 19mm (.748")	Dia. 26mm (1.024")	Dia. 26.5mm (1.043")	Dia. 27mm (1.063")
<b>TUG302</b> Dia. 25mm (.984")	<b>TUG520</b> Dia. 20mm (.787")	Dia. 27mm (1.063")	Dia. 27.5mm (1.083")	
<b>TUG303</b> Dia. 27mm (1.063")	<b>TUG521</b> Dia. 21mm (.827")	Dia. 28mm (1.102")	Dia. 28.5mm (1.122")	Dia. 29mm (1.142")
<b>TUG303</b> Dia. 27mm (1.063")	<b>TUG522</b> Dia. 22mm (.866")	Dia. 29mm (1.142")	Dia. 29.5mm (1.161")	Dia. 30mm (1.181")



<b>TUG304</b> Dia. 29mm (1.142")	<b>TUG523</b> Dia. 23mm (.906")	Dia. 30mm (1.181")	Dia. 30.5mm (1.201")	Dia. 31mm (1.220")
<b>TUG304</b> Dia. 29mm (1.142")	<b>TUG524</b> Dia. 24mm (.945")	Dia. 31mm (1.220")	Dia. 31.5mm (1.240")	Dia. 32mm (1.260")
<b>TUG305</b> Dia. 31mm (1.220")	<b>TUG525</b> Dia. 25mm (.984")	Dia. 32mm (1.260")	Dia. 32.5mm (1.280")	Dia. 33mm (1.299")
<b>TUG305</b> Dia. 31mm (1.220")	<b>TUG526</b> Dia. 26mm (1.024")	Dia. 33mm (1.299")	Dia. 33.5mm (1.319")	Dia. 34mm (1.339")
<b>TUG306</b> Dia. 33mm (1.299")	<b>TUG527</b> Dia. 27mm (1.063")	Dia. 34mm (1.339")	Dia. 34.5mm (1.358")	Dia. 35mm (1.378")
<b>TUG306</b> Dia. 33mm (1.299")	<b>TUG528</b> Dia. 28mm (1.102")	Dia. 35mm (1.378")	Dia. 35.5mm (1.398")	Dia. 36mm (1.417")
<b>TUG307</b> Dia. 35mm (1.378")	<b>TUG529</b> Dia. 29mm (1.142")	Dia. 36mm (1.417")	Dia. 36.5mm (1.437")	Dia. 37mm (1.457")
<b>TUG307</b> Dia. 35mm (1.378")	<b>TUG530</b> Dia. 30mm (1.181")	Dia. 37mm (1.457")	Dia. 37.5mm (1.476")	Dia. 38mm (1.496")
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<b>TUG309</b> Dia. 39mm (1.535")	<b>TUG533</b> Dia. 33mm (1.299")	Dia. 40mm (1.575")	Dia. 40.5mm (1.594")	Dia. 41mm (1.614")
<b>TUG309</b> Dia. 39mm (1.535")	<b>TUG534</b> Dia. 34mm (1.399")	Dia. 41mm (1.614")	Dia. 41.5mm (1.634")	Dia. 42mm (1.654")
<b>TUG310</b> Dia. 41mm (1.614")	<b>TUG535</b> Dia. 35mm (1.378")	Dia. 42mm (1.654")	Dia. 42.5mm (1.673")	Dia. 43mm (1.693")
<b>TUG310</b> Dia. 41mm (1.614")	<b>TUG536</b> Dia. 36mm (1.417")	Dia. 43mm (1.693")	Dia. 43.5mm (1.713")	Dia. 44mm (1.732")
<b>TUG311</b> Dia. 43mm (1.693")	<b>TUG537</b> Dia. 37mm (1.457")	Dia. 44mm (1.732")	Dia. 44.5mm (1.752")	Dia. 45mm (1.772")
<b>TUG311</b> Dia. 43mm (1.693")	<b>TUG538</b> Dia. 38mm (1.496")	Dia. 45mm (1.772")	Dia. 45.5mm (1.791")	Dia. 46mm (1.811")
<b>TUG312</b> Dia. 45mm (1.772")	<b>TUG539</b> Dia. 39mm (1.535")	Dia. 46mm (1.811")	Dia. 46.5mm (1.831")	Dia. 47mm (1.850")
<b>TUG312</b> Dia. 45mm (1.772")	<b>TUG540</b> Dia. 40mm (1.575")	Dia. 47mm (1.850")	Dia. 47.5mm (1.870")	Dia. 48mm (1.890")
<b>TUG313</b> Dia. 47mm (1.850")	<b>TUG541</b> Dia. 41mm (1.614")	Dia. 48mm (1.890")	Dia. 48.5mm (1.909")	Dia. 49mm (1.929")
<b>TUG313</b> Dia. 47mm (1.850")	<b>TUG542</b> Dia. 42mm (1.654")	Dia. 49mm (1.929")	Dia. 49.5mm (1.949")	Dia. 50mm (1.968")
<b>TUG314</b> Dia. 49mm (1.929")	<b>TUG543</b> Dia. 43mm (1.693")	Dia. 50mm (1.968")	Dia. 50.5mm (1.988")	Dia. 51mm (2.008")
<b>TUG314</b> Dia. 49mm (1.929")	<b>TUG544</b> Dia. 44mm (1.732")	Dia. 51mm (2.008")	Dia. 51.5mm (2.028")	Dia. 52mm (2.047")
<b>TUG315</b> Dia. 51mm (2.008")	<b>TUG545</b> Dia. 45mm (1.772")	Dia. 52mm (2.047")	Dia. 52.5mm (2.067")	Dia. 53mm (2.087")
<b>TUG315</b> Dia. 51mm (2.008")	<b>TUG546</b> Dia. 46mm (1.811")	Dia. 53mm (2.087")	Dia. 53.5mm (2.106")	Dia. 54mm (2.126")
<b>TUG316</b> Dia. 53mm (2.087")	<b>TUG547</b> Dia. 47mm (1.850")	Dia. 54mm (2.126")	Dia. 54.5mm (2.146")	Dia. 55mm (2.165")
<b>TUG316</b> Dia. 53mm (2.087")	<b>TUG548</b> Dia. 48mm (1.890")	Dia. 55mm (2.165")	Dia. 55.5mm (2.185")	Dia. 56mm (2.205")
<b>TUG317</b> Dia. 55mm (2.165")	<b>TUG549</b> Dia. 49mm (1.929")	Dia. 56mm (2.205")	Dia. 56.5mm (2.224")	Dia. 57mm (2.244")
<b>TUG317</b> Dia. 55mm (2.165")	<b>TUG550</b> Dia. 50mm (1.968")	Dia. 57mm (2.244")	Dia. 57.5mm (2.264")	Dia. 58mm (2.283")
<b>TUG317</b> Dia. 55mm (2.165")	<b>TUG551</b> Dia. 51mm (2.008")	Dia. 58mm (2.283")	Dia. 58.5mm (2.303")	Dia. 59mm (2.323")





**COLLET, SPACER  
and CONE SETS  
(FOR GENERAL AND  
SELECTED  
CATERPILLAR  
APPLICATIONS).**

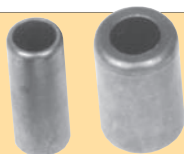
## ■ COLLET, SPACER & CONE SETS FOR GENERAL APPLICATIONS:

- **TUG301:** Collet Dia. 23-25mm (.905"-1.063"), 2 cones & 4 spacers.
- **TUG302:** Collet Dia. 25-27mm (.984"-1.063"), 2 cones & 4 spacers.
- **TUG303:** Collet Dia. 27-29mm (1.063"-1.142"), 2 cones & 4 spacers.
- **TUG304:** Collet Dia. 29-31mm (1.142"-1.220"), 2 cones & 4 spacers.
- **TUG305:** Collet Dia. 31-33mm (1.220"-1.299"), 2 cones & 4 spacers.
- **TUG306:** Collet Dia. 33.5-36.5mm (1.319"-1.437"), 4 cones & 4 spacers.
- **TUG307:** Collet Dia. 35.5-38.5mm (1.398"-1.516"), 4 cones & 4 spacers.
- **TUG308:** Collet Dia. 37.5-40.5mm (1.476"-1.594"), 4 cones & 4 spacers.
- **TUG309:** Collet Dia. 39.5-42.5mm (1.555"-1.673"), 4 cones & 4 spacers.
- **TUG310:** Collet Dia. 41.5-44.5mm (1.634"-1.752"), 4 cones & 4 spacers.
- **TUG311:** Collet Dia. 43.5-46.5mm (1.713"-1.831"), 4 cones & 4 spacers.
- **TUG312:** Collet Dia. 45.5-48.5mm (1.791"-1.909"), 4 cones & 4 spacers.
- **TUG313:** Collet Dia. 47.5-50.5mm (1.870"-1.988"), 4 cones & 4 spacers.
- **TUG314:** Collet Dia. 49.5-52.5mm (1.949"-2.067"), 4 cones & 4 spacers.
- **TUG315:** Collet Dia. 51.5-54.5mm (2.028"-2.146"), 4 cones & 4 spacers.
- **TUG316:** Collet Dia. 53.5-56.5mm (2.106"-2.224"), 4 cones & 4 spacers.
- **TUG317:** Collet Dia. 55.5-58.5mm (2.185"-2.303"), 4 cones & 4 spacers.

## ■ COLLET & CONE SETS FOR SELECTED CATERPILLAR APPLICATIONS:

- **TUG-CAT1:** 1 collet, 1 cone, **seat ID 2.281"**, Ht. 0.625", CAT353 & like, IN.
- **TUG-CAT2:** 1 collet, 1 cone, **seat ID 2.125"**, Ht. 0.625", CAT353 & like, EX.

### DISTANCE PIECE (USED WITH LIPLLESS CONES)



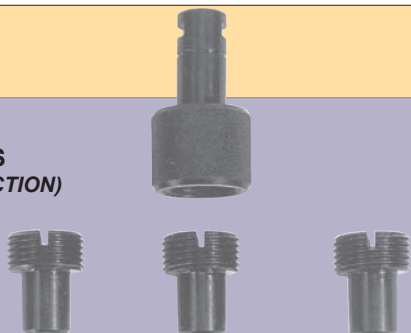
- **TUG-DP20:** Distance piece, 20mm (.787")
- **TUG-DP21:** Distance piece, 21mm (.827")
- **TUG-DP22:** Distance piece, 22mm (.866")
- **TUG-DP23:** Distance piece, 23mm (.905")
- **TUG-DP24:** Distance piece, 24mm (.944")
- **TUG-DP25:** Distance piece, 25mm (.984")
- **TUG-DP26:** Distance piece, 26mm (1.023")
- **TUG-DP27:** Distance piece, 27mm (1.063")
- **TUG-DP28:** Distance piece, 28mm (1.102")
- **TUG-DP34:** Distance piece, 34mm (1.338")
- **TUG-DP35:** Distance piece, 35mm (1.377")
- **TUG-DP36:** Distance piece, 36mm (1.417")
- **TUG-DP29.3:** Distance piece, 29.3mm (1.153")-CAT
- **TUG-DP30.3:** Distance piece, 30.3mm (1.192")-CAT
- **TUG-DP31.3:** Distance piece, 31.3mm (1.232")-CAT

### LIPLLESS CONE (FOR VALVE SEATS WITH CASTING INTERFERENCE AND FREEZE PLUGS).



- **TUG519:** Lipless cone, dia. 19mm (.748")
- **TUG520:** Lipless cone, dia. 20mm (.787")
- **TUG521:** Lipless cone, dia. 21mm (.827")
- **TUG522:** Lipless cone, dia. 22mm (.866")
- **TUG523:** Lipless cone, dia. 23mm (.906")
- **TUG524:** Lipless cone, dia. 24mm (.945")
- **TUG525:** Lipless cone, dia. 25mm (.984")
- **TUG526:** Lipless cone, dia. 26mm (1.024")
- **TUG527:** Lipless cone, dia. 27mm (1.063")
- **TUG528:** Lipless cone, dia. 28mm (1.102")
- **TUG529:** Lipless cone, dia. 29mm (1.142")
- **TUG530:** Lipless cone, dia. 30mm (1.181")
- **TUG531:** Lipless cone, dia. 31mm (1.220")
- **TUG532:** Lipless cone, dia. 32mm (1.260")
- **TUG533:** Lipless cone, dia. 33mm (1.299")
- **TUG534:** Lipless cone, dia. 34mm (1.399")
- **TUG535:** Lipless cone, dia. 35mm (1.378")
- **TUG536:** Lipless cone, dia. 36mm (1.417")
- **TUG537:** Lipless cone, dia. 37mm (1.457")
- **TUG538:** Lipless cone, dia. 38mm (1.496")
- **TUG539:** Lipless cone, dia. 39mm (1.535")
- **TUG540:** Lipless cone, dia. 40mm (1.575")
- **TUG541:** Lipless cone, dia. 41mm (1.614")
- **TUG542:** Lipless cone, dia. 42mm (1.654")
- **TUG543:** Lipless cone, dia. 43mm (1.693")
- **TUG544:** Lipless cone, dia. 44mm (1.732")
- **TUG545:** Lipless cone, dia. 45mm (1.772")
- **TUG546:** Lipless cone, dia. 46mm (1.811")
- **TUG547:** Lipless cone, dia. 47mm (1.850")
- **TUG548:** Lipless cone, dia. 48mm (1.890")
- **TUG549:** Lipless cone, dia. 49mm (1.929")
- **TUG550:** Lipless cone, dia. 50mm (1.968")
- **TUG551:** Lipless cone, dia. 51mm (2.008")

### TUG-GUN™ ACCESSORIES (STUDS EXTRACTION)



- **TUG-CK:** Stud puller connection set.
- **TUG-S-7/16x20:** Stud puller, 7/16" x 20
- **TUG-S-3/8x24:** Stud puller, 3/8" x 24
- **TUG-S-5/16x 24:** Stud puller, 5/16" x 24

## CONE WITH LIP (FOR GENERAL APPLICATIONS).



- TUG419: Cone with lip, dia. 19mm (.748")
- TUG420: Cone with lip, dia. 20mm (.787")
- TUG421: Cone with lip, dia. 21mm (.827")
- TUG422: Cone with lip, dia. 22mm (.866")
- TUG423: Cone with lip, dia. 23mm (.906")
- TUG424: Cone with lip, dia. 24mm (.945")
- TUG425: Cone with lip, dia. 25mm (.984")
- TUG426: Cone with lip, dia. 26mm (1.024")
- TUG427: Cone with lip, dia. 27mm (1.063")
- TUG428: Cone with lip, dia. 28mm (1.102")
- TUG429: Cone with lip, dia. 29mm (1.142")
- TUG430: Cone with lip, dia. 30mm (1.181")
- TUG431: Cone with lip, dia. 31mm (1.220")
- TUG432: Cone with lip, dia. 32mm (1.260")
- TUG433: Cone with lip, dia. 33mm (1.299")
- TUG434: Cone with lip, dia. 34mm (1.399")
- TUG435: Cone with lip, dia. 35mm (1.378")
- TUG436: Cone with lip, dia. 36mm (1.417")
- TUG437: Cone with lip, dia. 37mm (1.457")
- TUG438: Cone with lip, dia. 38mm (1.496")
- TUG439: Cone with lip, dia. 39mm (1.535")
- TUG440: Cone with lip, dia. 40mm (1.575")
- TUG441: Cone with lip, dia. 41mm (1.614")
- TUG442: Cone with lip, dia. 42mm (1.654")
- TUG443: Cone with lip, dia. 43mm (1.693")
- TUG444: Cone with lip, dia. 44mm (1.732")
- TUG445: Cone with lip, dia. 45mm (1.772")
- TUG446: Cone with lip, dia. 46mm (1.811")
- TUG447: Cone with lip, dia. 47mm (1.850")
- TUG448: Cone with lip, dia. 48mm (1.890")
- TUG449: Cone with lip, dia. 49mm (1.929")
- TUG450: Cone with lip, dia. 50mm (1.968")
- TUG451: Cone with lip, dia. 51mm (2.008")
- TUG452: Cone with lip, dia. 52mm (2.047")
- TUG453: Cone with lip, dia. 53mm (2.087")
- TUG454: Cone with lip, dia. 54mm (2.126")
- TUG455: Cone with lip, dia. 55mm (2.165")



### TUG600

Replacement threaded shaft for TUG-GUN™.



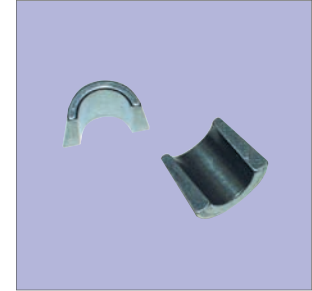
### TUG603

Replacement wrench for TUG602, expansion nut.



### TUG602

Replacement expansion nut for TUG-GUN™.



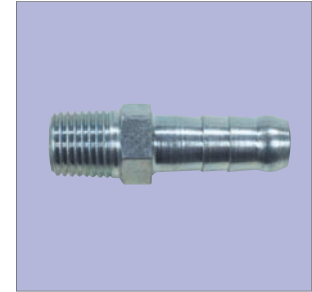
### TUG601

Replacement keepers (set of 2).



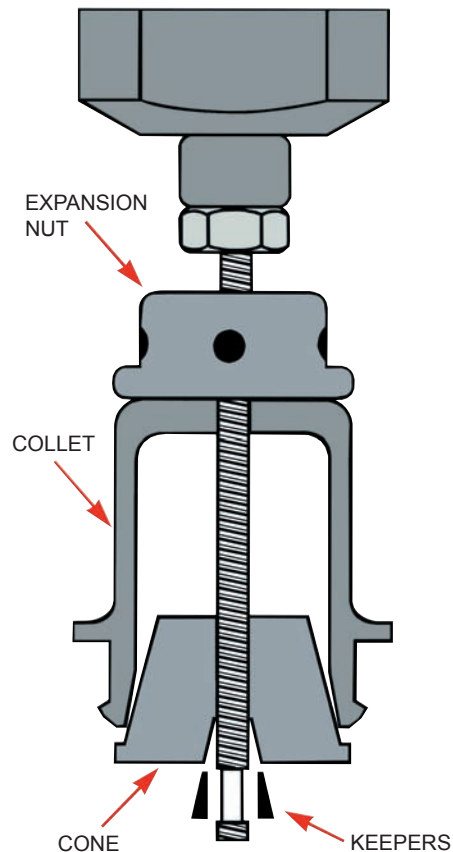
### TUG604

Replacement Lock-nut.



### TUG605

Replacement hose fitting.



## Why the PCC™ Tool?

When resurfacing a diesel engine cylinder head with indirect injection, pre-combustion chambers counterbores also have to be machined at the right depth in order to:

1. Have the pre-combustion chambers sit slightly higher than the gasket plan of the cylinder head, to ensure that the said precombustion chambers are properly maintained in place by the cylinder head gasket. Most O.E.M.s recommend that the pre-combustion chambers jut out approximately 2 to 3/100mm (0.001") above the cylinder head gasket plan.
2. Give a perfectly stable seat to the pre-combustion chambers, knowing that, in the long run, the pre-combustion chamber housings lose their shape and do not hold the pre-combustion chambers properly.
3. Allow, under any circumstances, the replacement of a pre-combustion chamber while respecting the recommended depth.

**It is not advisable to surface a cylinder head with the pre-combustion chambers left installed, for the following reasons:**

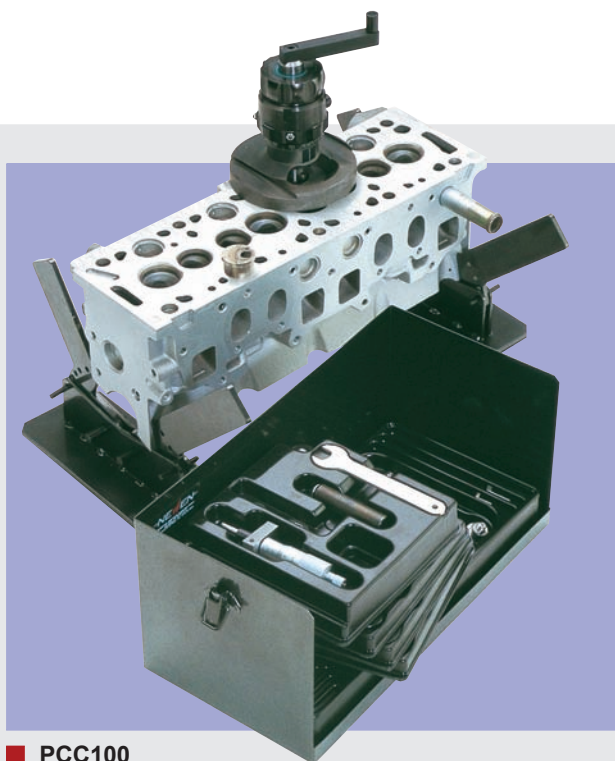
- The pre-combustion chambers will never be maintained properly since they will be flush with the cylinder head gasket plan and, consequently, will not receive any pressure from the gasket.
- The surfacing of the aluminum of a cylinder head and that of the alloy of the pre-combustion chambers require different cutters and different speeds. Moreover, it is extremely difficult to get a perfectly plan surface when grinding two different materials in one single operation.
- A pre-combustion chamber can come loose while the cylinder head is being resurfaced and can cause important damages to both cylinder head and the machine itself.
- A cylinder head surfaced with its pre-combustion chambers left installed can no longer receive original size replacement chambers.
- Surfacing pre-combustion chambers weakens these and multiplies the risk of rupture.

Among other things, it is important to extract the pre-combustion chambers to verify their press-fit in the cylinder head. In the event the pre-combustion chambers would not have the proper press-fit, it is recommended to widen their housings and to install oversize pre-combustion chambers instead.

### ■ PCC100

A counterboring tool to:

- Machine the housing of the precombustion chambers in diesel cylinder heads with indirect injection.
- Machine the housing width of pre-combustion chambers to install oversize pre-combustion chambers.

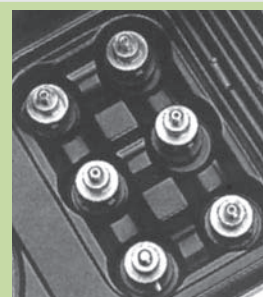


### ■ PCC100

Universal counterboring tool includes:

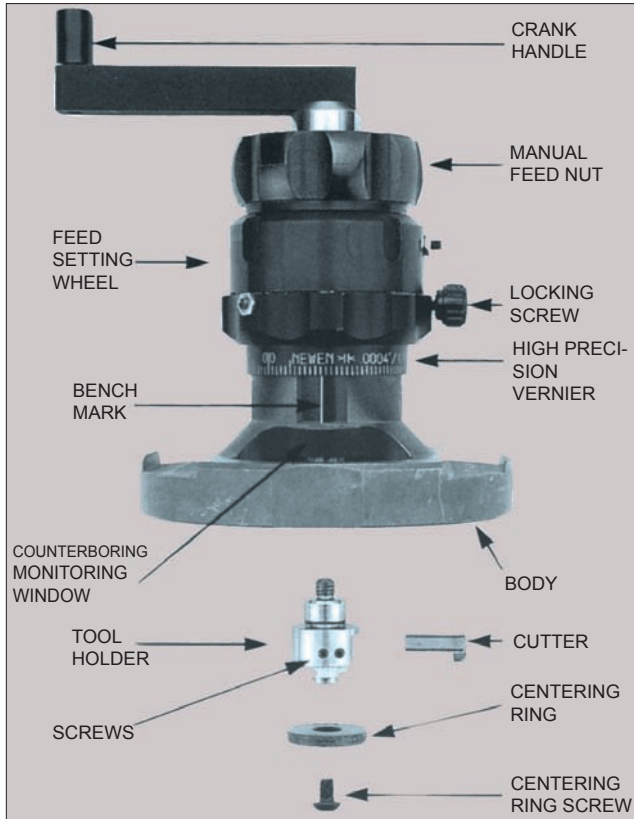
- 1 Metal storage box with organizers
- 1 PCC301, precision micrometer with fixture
- 1 Box wrench
- 4 Allen wrenches
- 1 PCC™ tool
- 1 Crank handle
- 1 Lathe adaptor
- 1 PCC304, Tool holder
- 1 PCC3031, #1 cutter, capacity: 25-30mm (.984-1.181")
- 1 PCC3032, #2 cutter, capacity: 30-40mm (1.181-1.575")
- 1 PCC3033, #3 cutter, capacity: 40-50mm (1.575-1.968")
- 24 centering rings:
  - 24.80mm (.9764"), 25.35mm (.9980"),
  - 25.45mm (1.0020"), 25.90mm (1.0197"),
  - 26.70mm (1.0512"), 26.80mm (1.0551"),
  - 27.20mm (1.0709"), 27.40mm (1.0787"),
  - 27.60mm (1.0866"), 28.15mm (1.1083"),
  - 28.80mm (1.1339"), 28.90mm (1.1378"),
  - 29.65mm (1.1673"), 29.75mm (1.1713"),
  - 30.10mm (1.1850"), 30.30mm (1.1929"),
  - 30.40mm (1.1969"), 32.90mm (1.2953"),
  - 34.60mm (1.3622") - GM6.2& GM6.5L applications,
  - 34.65mm (1.3642"), 34.75mm (1.3681"),
  - 35.90mm (1.4134") - FORD/NAVISTAR 6.9/7.3L applications,
  - 40.00mm (1.5748") - semi finished centering rings, 2 rings included, to be used with lathe adaptor.

■ The bottom drawer of the PCC100 organizer can store several pre-set tool holders for your most common cylinder heads. Pre-set tool holders are very affordable and reduce set-up time significantly.



- SAVE TIME.
- KEEP JOB QUALITY CONSISTENT OVER TIME.
- MINIMIZE TOOLING WEAR.
- INCREASE PROFITABILITY.





■ **PCC304**  
Centering head and cutter holder.

■ **PCC304L**  
Centering head and cutter holder (1" longer).

■ **PCC3031**  
#1 cutter, capacity: 25mm-30mm (1"-1.181").

■ **PCC3032**  
#2 cutter, capacity: 30mm-40mm (1.181"-1.574").

■ **PCC3033**  
#3 cutter, capacity: 40mm-50mm (1.574"-2").

■ **PCC3034**  
#4 cutter for wide housings. Same length as #2 cutter.

■ **PCC305**  
Replacement centering ring, dia. 24.8mm-40mm (1"-1.574") - *Order as follow: PCC305-34.6.*



■ **PCC302**  
Universal cylinder head holder, adjustable without tools, to position any shape cylinder head with its gasket side horizontal.



■ **PCC110**  
Clamping table for PCC100 (NEW)



## ■ NWN-CTS

NEWEN® high performance carbide tip sharpener (available in 110V or 220V).

Includes:

- 1 NWN-DWN, high performance diamond wheel.
- 1 NWN-WC, diamond wheel center.
- 1 NWN-GP375, guiding pin, dia. 9.52mm (.375").
- 1 NWN-CTSLK, 2.5mm L-key.
- 1 NWN-SFTG, pair of safety glasses.
- 1 NWN-CTSMNL, user manual.

With NEWEN® high performance carbide tip sharpener:

- Save time
- Prolong carbide tips and tip holders life
- Minimize tooling wear
- Increase profitability

Interchangeable guiding pins for total compatibility with NEWEN®, Kwik-Way, Sunnen, Peterson, Berco, DCM, Winona, Sioux, KO Lee, Tobin Arp and Mira tool holders and ball heads.

**GIVE YOUR EMPLOYEES THE TOOLS TO BE MORE PRODUCTIVE!**



## ■ NWN-DWN

Replacement diamond wheel for NEWEN® sharp-



## ■ NWN-SFTG

Replacement safety



## ■ NWN-GP375

Guiding pin, dia. .375" (9.52mm)

## ■ NWN-GP385

Guiding pin, dia. .385" (9.78mm)

## ■ NWN-GP389

Guiding pin, dia. .389" (9.88mm)

## ■ NWN-GP390

Guiding pin, dia. .390" (9.90mm)

## ■ NWN-GP437

Guiding pin, dia. .437" (11.10mm)

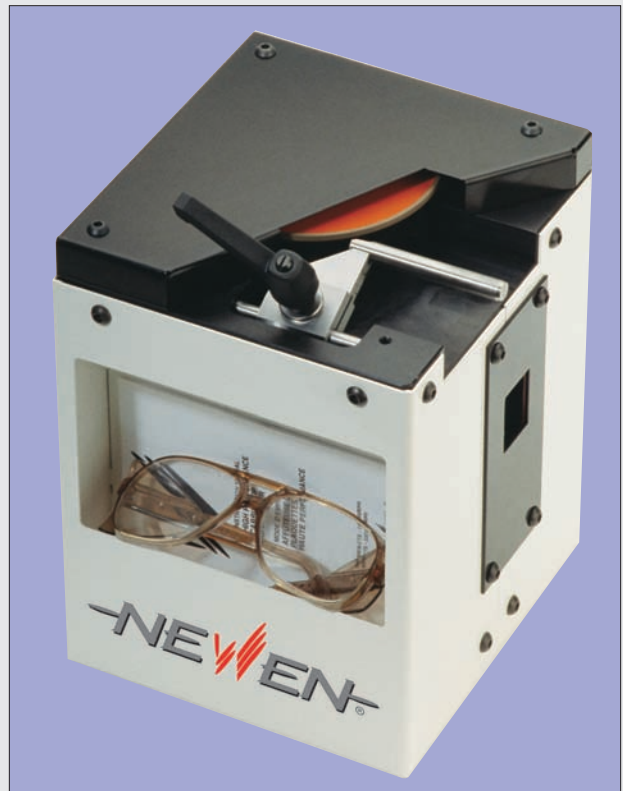
## ■ NWN-GPMRA

Guiding pin, dia. .375" (Mira)

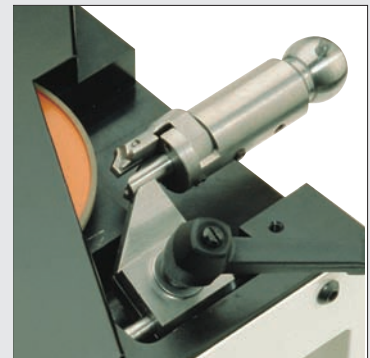


## ■ NWN-DWS

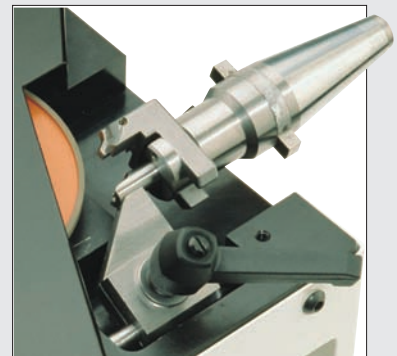
Replacement diamond wheel for Serdi sharpener.

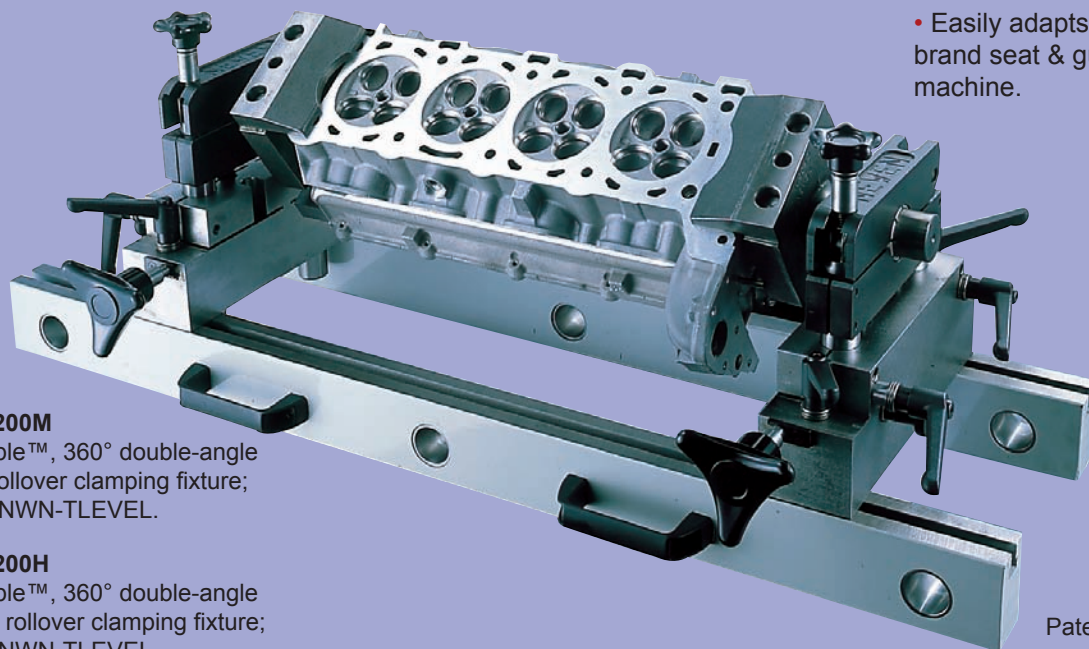


## ■ BALL HEADS



## ■ TOOL HOLDERS





- Easily adapts to any brand seat & guide machine.

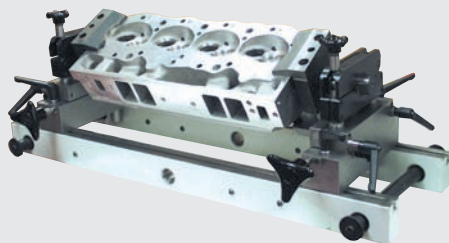
## ■ SGC200M

Palletizable™, 360° double-angle manual rolover clamping fixture; includes NWN-TLEVEL.

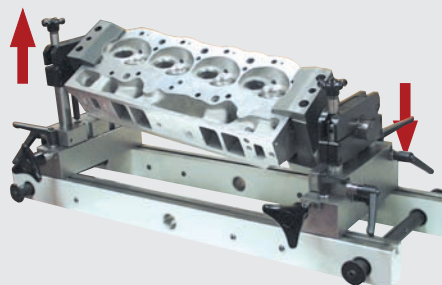
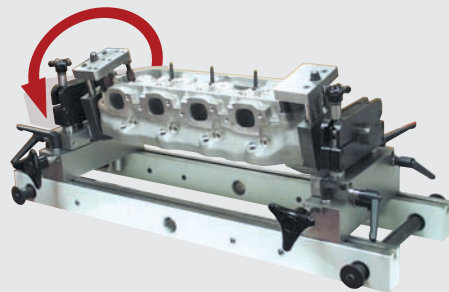
## ■ SGC200H

Palletizable™, 360° double-angle hydraulic rolover clamping fixture; includes NWN-TLEVEL.

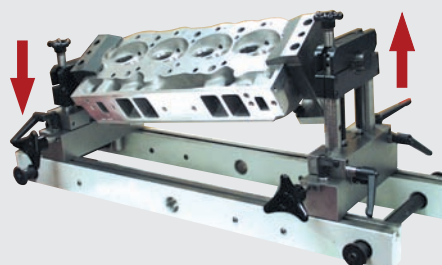
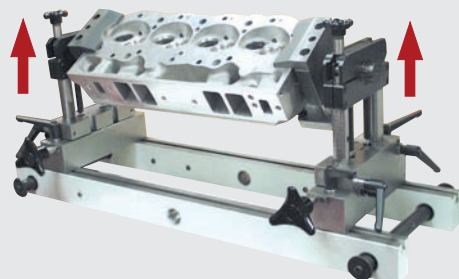
Patented



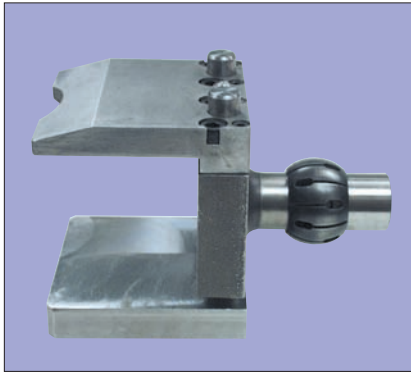
- NEWEN®'s most universal precision clamping system for automotive and light diesel cylinder heads. Allows quick positioning of most cylinder heads regardless of the valve guide angles. Also allows to simply raise cylinder heads to any desired level and to roll them over for various jobs.



- This patented system is quick, universal, very rigid, user friendly and does not put any stress on cylinder heads owing to its independant jaws and spherical collet clamping system. **A must for any seat & guide machine.**







■ **SGC425**  
Extended reach jaw for SGC200M & SGC200H clamping systems.

■ **SGC425-S**  
Extended reach jaw for SGC200M-S clamping systems (for SUPER100™ machines).



■ **SGC416**  
Set of two tall jaw columns & contact plates (8.58") for SGC200M & SGC200H clamping systems.



■ **SGC417**  
Set of 2 additional clamping jaws for SGC200M & SGC200H clamping systems.

■ **SGC417-S**  
Set of 2 additional clamping jaws for SGC200M-S clamping systems (for SUPER100™ machines).



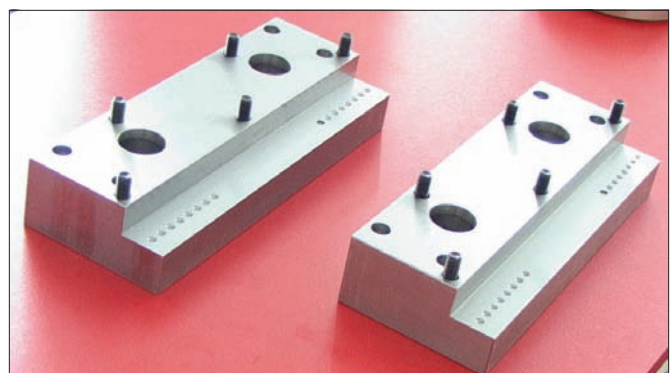
■ **NWN-ACB1**  
Set of 2 adjustable clamping pins for odd shaped cylinder heads. 40-50mm (1.57"-2.16")



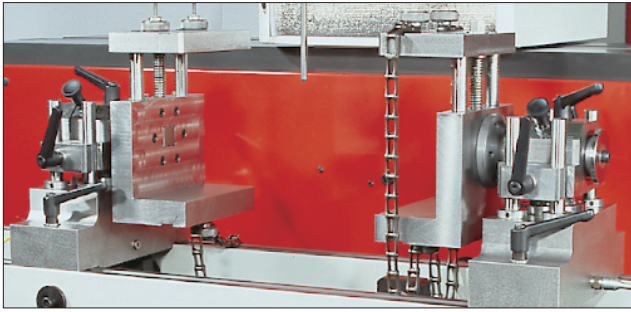
■ **NWN-ACB2**  
Set of 2 adjustable clamping pins for odd shaped cylinder heads. 55-75mm (2.16"-2.95")



■ **NWN-ACB3**  
Set of 2 adjustable clamping pins for odd shaped cylinder heads. 75-100mm (2.95"-3.93")

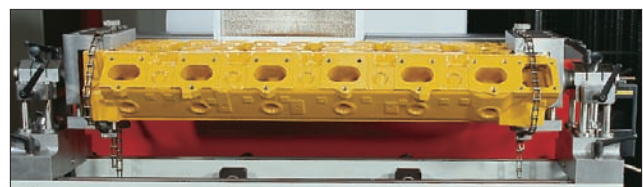
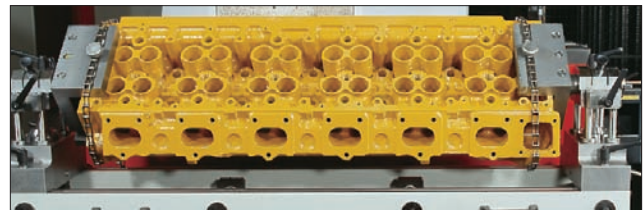
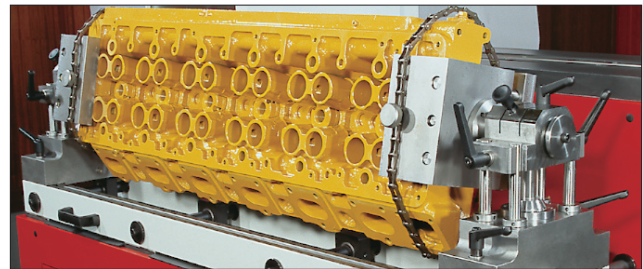
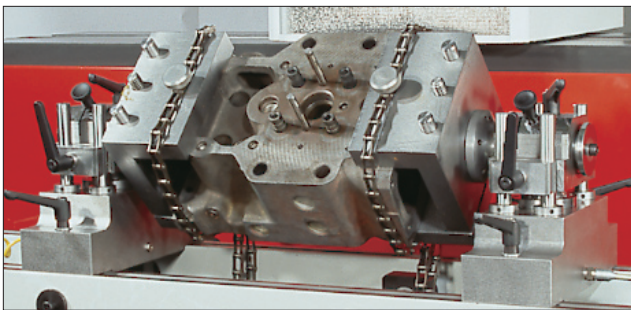
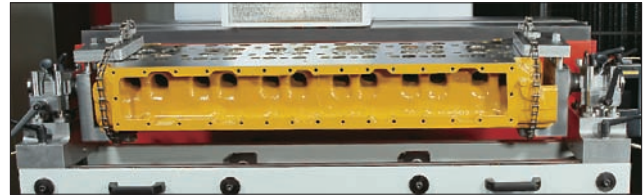
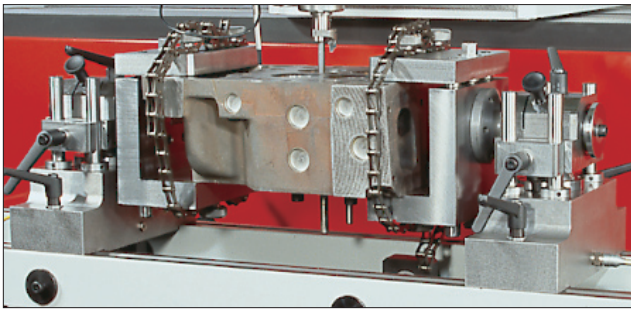


■ **SGC406**  
Adapter plates for SGC200M (set of 2)  
(For Milling Machines, others...)



## ■ SGC200PHD

Pneumatic assisted 360 degree heavy duty rollover clamping fixture for large diesel cylinder heads - **NON-STOCK**.





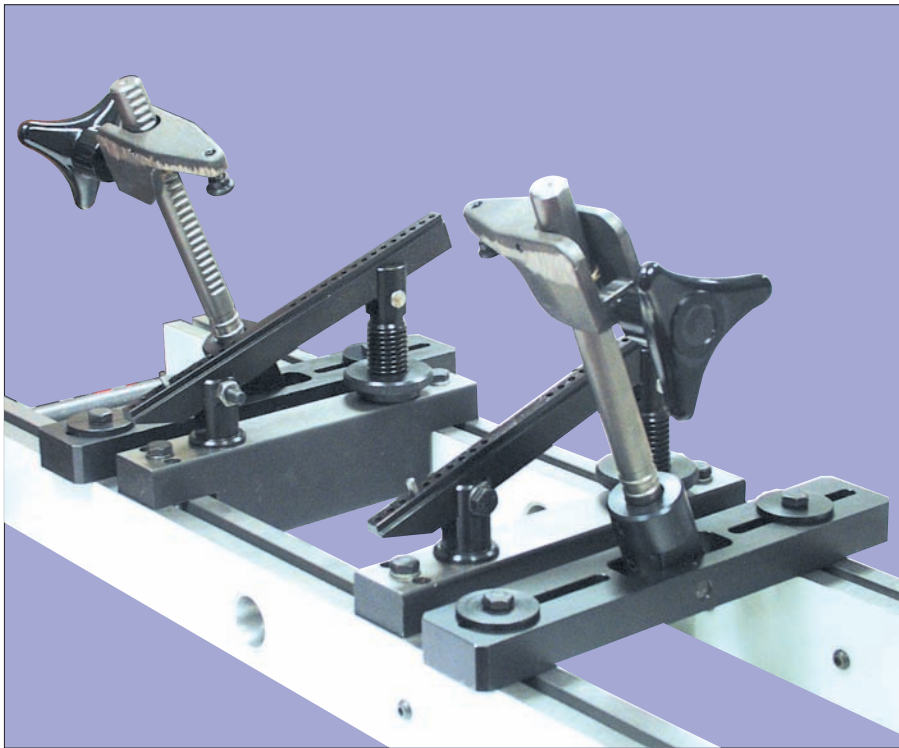
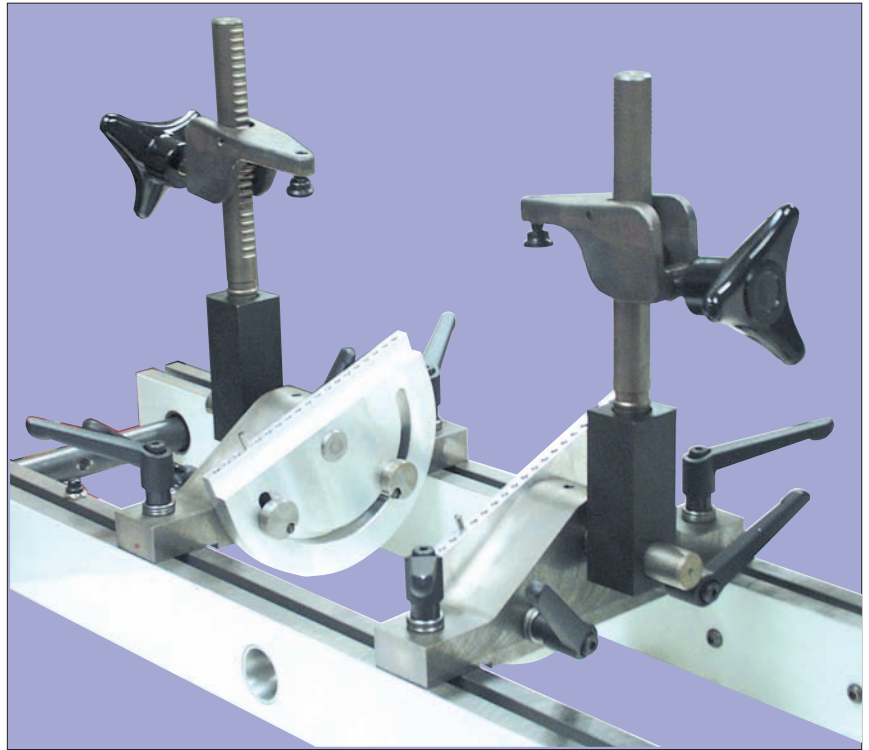
■ **SGC213**

Multi-angle swing cylinder head clamping fixture.

■ **SGC213-S**

Multi-angle swing cylinder head clamping fixture.

For SUPER100™ machines.



■ **SGC212**

Multi-angle cylinder head clamping fixture and set of 2 side clamps (SGC704 & SGC705 included).



■ **SGC704**

45mm height parallel for SGC212.

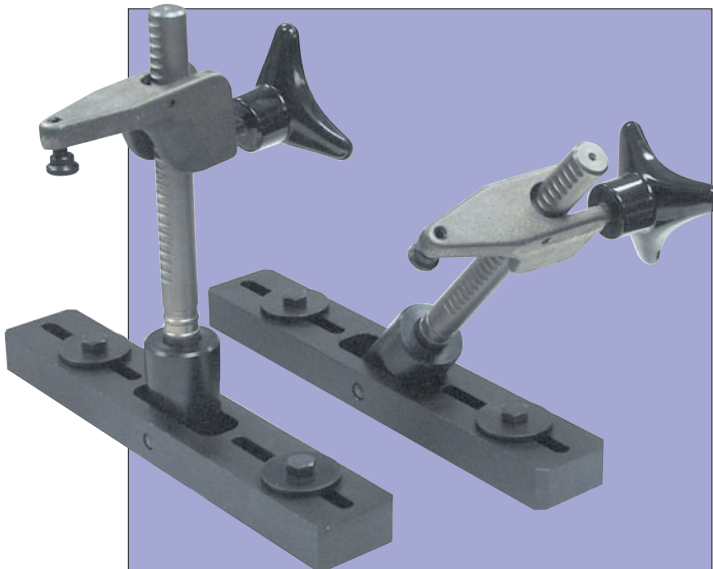
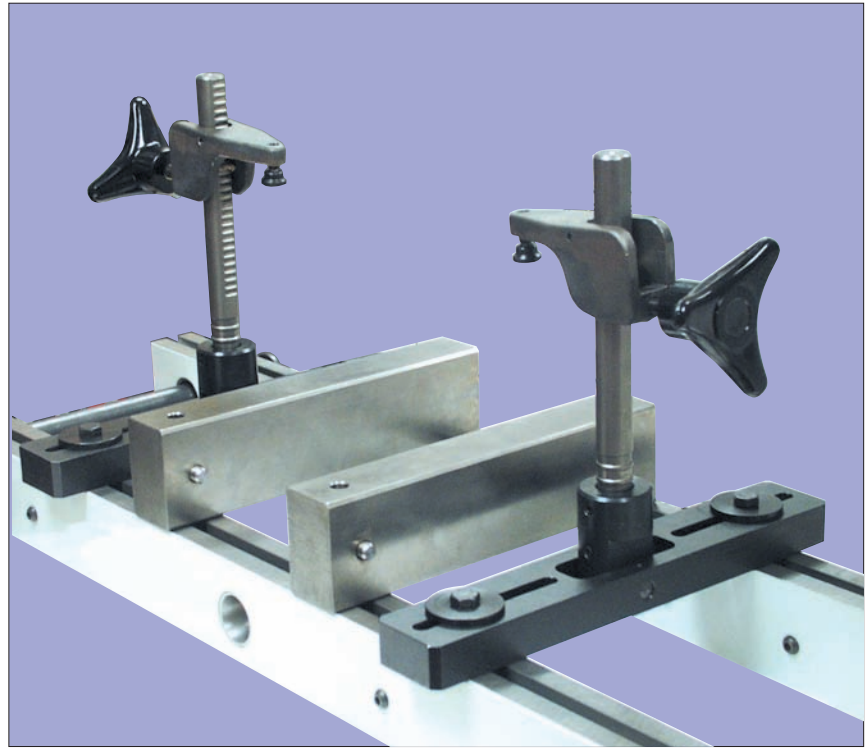
■ **SGC705**

60mm height parallel for SGC212.



## ■ SGC201

Side clamping fixture with set of 2 riser blocks.



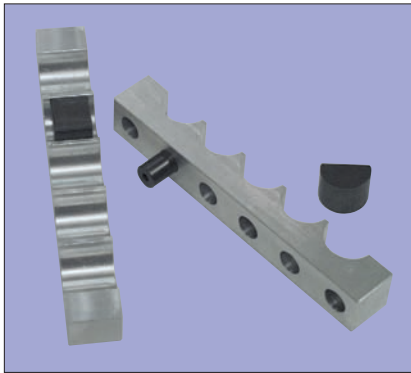
## ■ SGC407

Set of 2 side clamps.



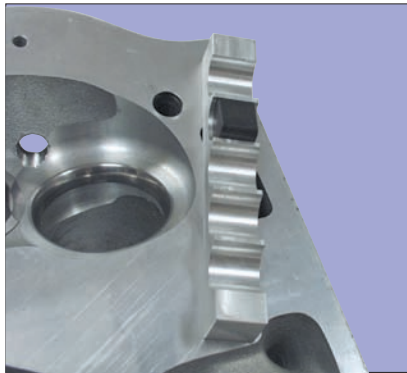
## ■ SGC403

Set of 2 precision machined cast iron cylinder head positioning blocks (riser blocks).



## ■ SGC404

Set of 2 aluminum pads for clamping aluminum cylinder heads (commonly used with SGC212).



## ■ SGC405

Set of 2 long side clamp bars for SGC201, SGC212 or SGC213.



## ■ SGC721

Replacement parallel lock handle for SGC200M & SGC200H. Use SGC721-S for SGC200M-S.



## ■ SGC765

Replacement parallel lock handle for SGC213. Use SGC765-S for SGC213-S.



## ■ SGC766

Replacement side clamp.



## ■ SGC710

Replacement pivoting lock handle for SGC200M & SGC200M-S.

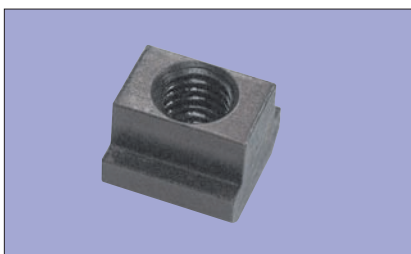


## ■ SGC769

Replacement side clamp lead screw for SGC699 (SGC200M, SGC200M-S & SGC200H) - comes as a set.

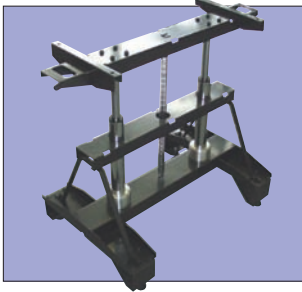
## ■ SGC770

Replacement side clamp lead screw for SGC416 (SGC200M & SGC200H) - comes as a set.



## ■ SGC616

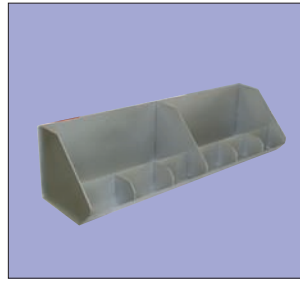
Replacement T-nut.



■ **SM201**  
Adjustable height stand.



■ **SM202**  
Standard stand.



■ **SM206**  
Stainless steel parts organizer.



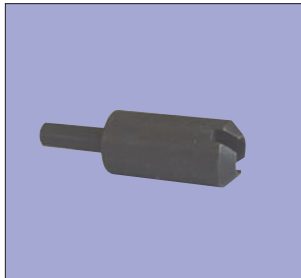
■ **SM815**  
Cam-bucket bore protector kit.



■ **SM207**  
Self-locking tweezers.



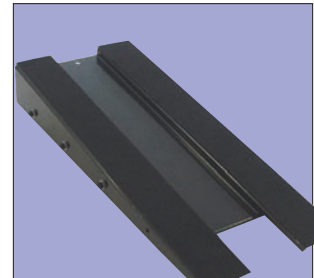
■ **SM208**  
Telescopic magnet.



■ **SM241**  
Drill adapter.



■ **SM220**  
Universal fastening fixtures.



■ **SM210**  
Compound angle wedge.



■ **SM251**  
Pneumatic foot motorization.



■ **SM280**  
Air drill kit.



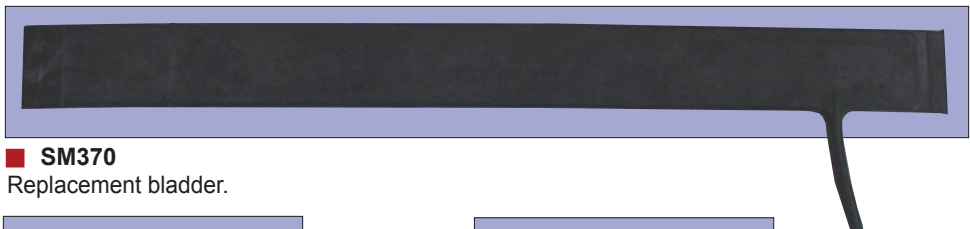
■ **SM200**  
Replacement chuck adapter.



■ **SM318-344**  
Replacement gripper (18mm, 20mm, 22mm, 24mm, 26mm, 28mm, 32mm, 36mm, 40mm, 44mm).



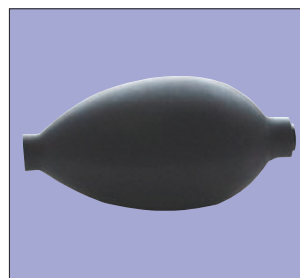
■ **SM351**  
Replacement vanes (set of 5) for pneumatic motor).



■ **SM370**  
Replacement bladder.

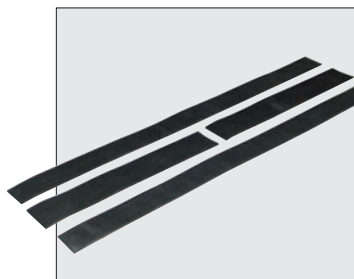


■ **SM372**  
Replacement in-line valve.



■ **SM371**  
Replacement hand pump.





■ **SM373**  
Replacement mat set.



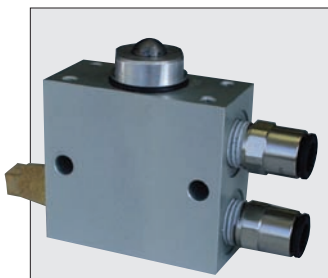
■ **SM374**  
Replacement bull'd eye level.



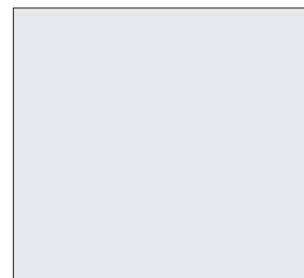
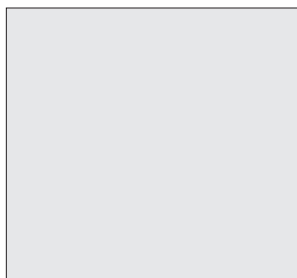
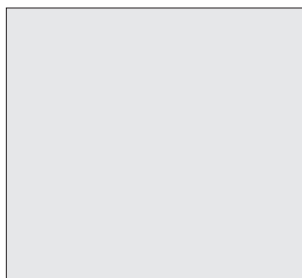
■ **SM375-25-44**  
Replacement cam-bucket  
bore protector, 25-44mm.



■ **SM473**  
Gear drive assembly (axle,  
bearings, tapered screw, half  
axles, housing).



■ **SM350**  
Foot pedal air distributor.







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